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Compiled and distributed by Michael C Jennings (ABBA Co-ordinator)

for contributors to the Atlas of the Breeding Birds of Arabia

INTRODUCTION

At the time of going to press the computerisation of the ABBA project was about to start. Progressively over the coming months all report sheets, notes and records will be added to the computer data bank. This will give much better access opportunities to individuals or societies needing information on Arabian breeding birds, including better quality maps, and allow for the interim atlas to be completed. This great stride forward is due to two factors. Firstly the sponsorship agreement with the NCWCD Riyadh has met the purchase of a computer system, including specialist software. Secondly Chris Tucker has joined the ABBA project as a researcher. She will be primarily responsible for the accession of records from literature and museum sources and for the data capture of all records collected so far.

Chris is an environmental biologist, currently working for the RSPB. In the past, she has worked for the Open University, a gravel pit nature reserve, and for the bird ringing scheme at the British Trust for Ornithology. She has recently taken over as Membership Secretary of the Ornithological Society of the Middle East. As well as her interest in birds and nature, Chris also practices Karate-Ki and various textile crafts.

Many readers will have noticed that in May 1990 the Yemen Arab Republic (YAR) and the People's Democratic Republic of Yemen (PDRY) formally merged to become the Republic of Yemen. The former states were also known as North and South Yemen respectively - an inappropriate choice of names as the northernmost part of South Yemen is further north than any part of North Yemen! The PDRY was also formerly known as the Aden Protectorate and sometimes as South Arabia. Historically the study of ornithology in the two states has been markedly different. Up until 1967 when the British left their colony at Aden, South Yemen was probably the most studied of any part of Arabia, whereas until the early 1980s very little was known at all of North Yemen's birds. However, since 1967 virtually no new ornithological information has become available for South Yemen but North Yemen on the other hand has become very well known. Unification will open up the former South Yemen to ornithologists, which will hopefully mean a flow of data to ABBA. Because of the different backgrounds of the two countries ABBA and Phoenix will continue to refer to North and South Yemen where it is necessary to make a historical or geographical distinction. The name Republic of Yemen will be used at all other times.

NEW BREEDING SPECIES

This column provides details and discussion of confirmed breeding species that are additional to the 1987 List of the Breeding Birds of Arabia (form 2) provided to all contributors. (It is also available for sale; see enclosed sales list). The number shown against each bird is the species code reference to be used in reporting observations on Form 3; the scientific names generally follow the List of Recent Holarctic Bird Species by Voous (BOU, 1977). A revised Form 2 will be prepared in due course.

0303 FALCO NAUMANNI lesser kestrel

A small breeding colony of this species was discovered on Jebel al Amud (FA38) in the NCWCD Harrat al Harrah reserve (See Pheonix 5:8) in June 1990. On a visit to the mountain on 3 June, Paul Goriup and I saw at least five birds, including one recently fledged juvenile.

The birds were very active, flying acrobatically

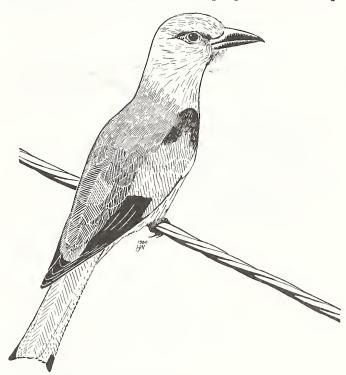


Fig 1. A surprising addition to the list of the Arabian breeding birds in 1990 was the European roller. See New Breeding Species.

Sponsor

National Commission for Wildlife Conservation and Development (NCWCD) Riyadh, Kingdom of Saudi Arabia



اشراف

الهيئة الوطنية لحماية العياة الفطرية وإنمائها الرياض – المملكة العربية السعودية around our heads and calling, and occasionally perching on rocks allowing scrutiny through a telescope. There were two or more females, one immature male and one adult male, showing the diagnostic bluish hood and unspotted bright chestnut mantle. Some of the birds also had projecting central tail feathers (or perhaps just lack of white tips to these feathers). The juvenile was disturbed from a rock ledge, but was not yet able to fly.

A month later, on 3 July, another adult male was seen 50 km or so to the south, but apart from these records and another sighting of a probable female in spring 1989, records of lesser kestrels in the region seem to be very few and far between. Green (1984, Sandgrouse 6:48-50) makes no mention of the species. However, on the same mountain in March 1988, a group of kestrels seen from a distance by Paul Goriup and Peter Symens were possibly this species. The likelihood is that the colony has in fact been present for at least three years.

The lesser kestrel is a common summer breeding visitor to parts of the Mediterranean, the Middle East and Asia, although it has undergone declines in many countries in recent years. It is a social falcon, inhabiting open, arid country, but has adapted to using nest-sites in old buildings in urban areas.

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0841 CORACIAS GARRULUS European roller

The status of the European roller in the United Arab Emirates is much the same as that recorded throughout he rest of the Arabian Peninsula. It occurs regularly on spring and autumn passage, in transit during its rather extravagant seasonal migration between the warm temperate zones of Europe and Central Asia and its African wintering grounds. It is most likely to be found in the Emirates from April to mid May and September to October. Some occur in March and August, and it is exceptional to find any from late May to mid July.

Its 1990 spring passage was healthy, with a number of reports of ones and twos seen throughout April and early May, whilst parties of up to six together were reported from 10-25 April at Dubai, Asab in the western desert and in the expanding fodder fields of Digdaga, in the far north of the country.

Digdaga (VB28) near Ras al Khaimah has been a source of ornithological discoveries in recent years, with European bee-eaters recorded breeding for the first time in 1989. This year the fields have been expanded further over the gravel plains, and indigenous Ghaf Prosopis cineraris trees have been carefully retained wherever they stand in and around the new fields. This has created a marvellous landscape of mature trees and grassland; ideal for Indian rollers, which breed in the area.

European rollers were recorded on all visits from early April 1990, and nine birds wee found on 25 May, when passage should have been well over. They seemed at home perching on irrigation spray heads, many of which were already occupied by Indian rollers, and surprisingly the two species appeared to be co-existing quite happily. They were still present in June, and on 4 July, I found five birds, including at least one juvenile. This young bird had buff edges to its blue wing coverts and was very pale around the face and throat (mainly due to creamy pale feather tips). The brown to the back was pale and indistinct. Nearby, a pair of adults were chasing in what appeared to be a half-hearted display. Juvenile birds were later recorded on several subsequent visits to the fields, which are spread widely over several hundred hectares. This habitat appears to have supported several pairs of European rollers this year.

This is the first breeding record of European roller for Arabia. More conclusive breeding evidence will be sought in 1991 when their presence at Digdaga will be monitored more closely.

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 $\underline{\rm NB}$ The European roller breeds throughout much of Iran, in Iraq at the head of the Arabian Gulf and probably in Jordan. Ed.

WHEATEARS OF THE OENANTHE LUGENS COMPLEX (MOURNING WHEATEAR) IN ARABIA

Mike Jennings recently (1989, Phoenix 6) expressed the view that South Arabian mourning wheatears Oenanthe "lugentoides" should be considered a separate species from O.lugens. Hollom et al. (Birds of the Middle East and North Africa, 1988, Poyser: Calton) also followed this course. In this note I aim to present evidence which suggests that it would be preferable to continue to regard South Arabian wheatears as a group of subspecies of the mourning wheatear O. lugens.

Wheatear taxonomy has been confused by the high lability of plumage characters in the genus and wheatears include an unusually high proportion (for birds) of polymorphic species, species with a range of plumage types within the same sex of a single subspecies. Wheatear species and subspecies are differentiated by variations on two themes, of black-and-white or sandy plumage, but many species are polymorphic in one or more of crown, throat or belly colour. Also, the degree of sexual or age dimorphism may vary between races of single species. Characters involved in polymorphism or sexual dimorphism in some species are responsible for subspecific differentiation in others and for distinction between yet other full species. I recently reviewed the relationships of wheatears in an attempt to sort out some of this confusion (Tye, A. 1989, Bonn. zool. Beitr. 40: 165-182 and come to the following conclusions regarding mourning wheatears.

This species has more geographical races (eight) than any other wheatear. The races are eight isolated populations, in North and East Africa and the Middle East, including Arabia. These races are often divided into three groups. The "Lugubris" group comprises three dark plumage, sexually dimorphic subspecies: O. lugens lugubris, O.l. vauriei and O.l. schalowi. These are isolated, montane subspecies, found in Ethiopia, Somalia and East Africa respectively. The "lugentoides" group is what Hollom et al. (1988) and Jennings (1989) refer to as "South Arabian wheatears"; it consist of two sexually dimorphic subspecies, O. l. lugentoides of SW Arabia and O.l. boscaweni of the extreme south. The "lugens" group has three subspecies: O. l. lugens breeds in the Middle East from approximately lower Egypt to Syria, including NW Arabia, O.l. persica breeds in Iran and possibly NE Arabia; these two are sexually monomorphic. The third, O.l. halophila of North Africa from Morocco to Libya, is sexually dimorphic. The "lugens" group is partially migratory, overlapping with other races in winter.

The three subspecies groups, and even some of the individual subspecies, eg 0. 1. schalowi, are

^{*} Scientific names of all species included in the project and their reference numbers are given on Form 2: List of Breeding Birds of Arabia - issued free to all contributors. The names of other species and additions to the list are given in full. To save space, localities mentioned in the text (except major towns) are suffixed by the atlas square reference and these can be seen on the maps in this issue. Bibliographic references are kept to a minimum and are given in abbreviated form. All articles are attributed to the Editor unless otherwise shown.

undoubtedly at least incipient species, being geographically isolated and with distinctive

However, problems arise when one tries to decide how to divide mourning wheatears up into a number of smaller species. The problem is caused by the fact that, although 0. 1. schalowi at one extreme appears strikingly different from 0. 1. halophila at the other, these extremes are linked by a chain of the other subspecies and along the chain there is no obvious break in characteristics; rather, characters change gradually or one by one. The difficulty is exacerbated by the fact that each subspecies is an isolated population; one cannot apply biological species definition of lack of interbreeding. This means that, if one wants to divide mourning wheatears up, it is impossible to say where the dividing lines should be. For example, should the *lugubris* group be treated as one species, or as two (schalowi and Lugubris-vauriei) or as three (0.schalowi and Lugubris, 0.vauriei)? On the other hand, the Somalian vauriei is quite similar to the lugentoides South Arabian birds and should perhaps be grouped with the latter? Or perhaps the lugentoides group should be merged with 0.1. lugens-persica (as some plumage similarities suggest), separate from 0.1. halophila? Since the location of such divisions would be largely a matter of personal preference, based on subjective weighting of particular characters, it seems far better to follow established practice and include all within one species: 0. lugens.

Ecology and geography are sometimes of use in deciding where to place such boundaries but in the present case they are not very helpful. All of the North African and Middle Eastern races have similar ecology and the lugentoides group is not the only one to breed in Arabia.

To speculate somewhat, it seems likely that is the extremes of the chain, as represented by halophila and schalowi, were to come into contact, they would not interbreed, but if any subspecies met its neighbour they would. This is analogous to the situation in so-called ring species, where the extremes would be regarded as separate species were it not for the presence of the intermediates.

As regards the South Arabian birds, they are clearly intermediates (between lugens and vauriei, and it is hard to justify separating them as a full species. If one did so, and wished to remain consistent, half a dozen wheatear species would have to be similarly split, not to mention other bird species.

So, at the risk of denying Arabia an endemic species, I suggest retention of all eight populations in 0. lugens. This does not remove populations in 0. lugens. This does not remove the value of recording for ABBA purposes the South Arabian lugentoides-boscaweni separately from 0. 1. lugens of NW Arabia and from 0. 1. persica of (perhaps) the southern shores of the Arabian Gulf. One may perhaps hope to discover thereby an area of overlap where interbreeding does not occur, and which would thus prove that they are different species. However, recorders do need to beware of temporary population overlaps cased by the migrations of the *lugens* group which may, in spring, be found in areas where the South Arabian birds are breeding at the time.

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BLACK-WINGED STILTS BREEDING FOR THE FIRST TIME IN BAHRAIN

Since the beginning of 1990 black-winged stilts were present at the mangrove marsh at Sanad, Bahrain (QB29). The flock numbered up to 27 in February and reached a maximum of 35 on 5 March (Tom Nightingale in litt.). A pair were seen copulating on 28 February. Tom Nightingale and Jos Kuypers found another group of eight birds at an area of small pools at a disused garbage dump at Riffa (QB29) on 3 March. They were calling anxiously throughout the spring and up to 10 individuals were seen there. I was away from the island during most of May but when I revisited the Sanad manrove marsh on 22 May, I saw eleven adult and six young birds. The size of the young birds varied, the largest being fledged and the smallest still only a chick. A visit to the Riffa pools on 23 May revealed 15 adults, one fledged juvenile and two chicks. On 7 June there were only six adults and eight juveniles at the mangroves.

Dave Davies reported to me that black-winged

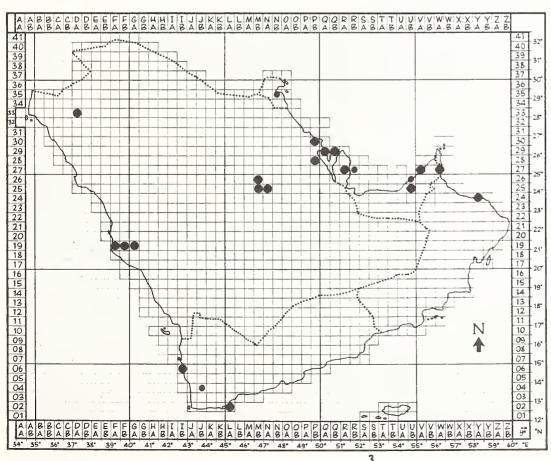


Fig 2 The black-winged stilt is an opportunist breeder at wetland sites all round Arabia. It bred for the first time in Bahrain in 1990.

- Confirmed breeding
- Probable breeding

stilts were present during May at a third suitable breeding site of reeds and pools created by waste from a chicken farm near Durmistan (QB29). I visited the site at the end of May and found three sub-adult birds present. During subsequent visits in June and July alarm-calling adults were present, on 27 July I found two nearly fledged juveniles, and on 6 August, one downy young,.

The mangrove marsh and Riffa pools are just 3 km apart, whilst Durmistan is 8 km from Riffa. The presence of downy young proves breeding at all three sites. These are the first records of black-winged stilts breeding in Bahrain. Perhaps breeding was not unexpected in view of recent breeding in the UAE in 1988 (Phoenix 5:9), and Oman in 1987 (Phoenix 4:6), and in Abu Dhabi where up to 300 birds were present at one site in the summer of 1990 (ENHG Newsletter Vol 14, No. 7/8:4).

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<u>Footnote.</u> See Fig 2 for the distribution of breeding records of black-winged stilt, Ed.

WATTLED STARLING CREATOPHORA CINEREA - A POTENTIAL BREEDING SPECIES FOR ARABIA

Among the 25 species of the proper starlings (Sturnus-Acridotheres group) the wattled starling is the only member that occurs in the Afrotropical Region. All the other species are found in the Palearctic or Oriental regions. The wattled starling inhabits arid areas from south western Africa, through Southern and East Africa to Eritrea, it may even extend its breeding range to the Arabian Peninsula (eg Martins, R. 1986: Phoenix 3:6.)

An outstanding trait of cinerea is its breeding ecology (Liversidge, R. 1961: Ann. Cape Prov. Mus. 1:71-80; Paxton, M & T Cooper. 1986: Lanioturdus 22:37-40). It usually forms relatively small colonies of up to 400 nests, but much less frequently, when there is an abundant food supply, eg locust swarms, breeding colonies may comprise thousands of nests. It is likely that the occurrence of big locust swarms, which Creatophora tends to accompany, is the cause of long migrations of this highly nomadic species, even as far as the Arabian region. It would be of great interest to correlate the frequency of occurrence and numbers of cinerea in Arabia with the incidence of locust pests in the distributional range of the species. What food does it take in Arabia? Does it occasionally breed there or try to do so?

As in other aspects of behaviour, eg courting, there is a marked variability in nesting behaviour. Several classes of nest-types can be distinguished, eg; single nests and nesting-communities (Sontag in prep). Creatophora is one of the few open-nesting species of the group; it builds bulbous nests in acacias, and nowadays in Africa increasingly in the introduced bluegum trees, (cf. Uys, C.J.1977; Bokmakierie 29:87-89). If nesting occurs in Arabia how do they nest and where?

Variability of appearance of head structures and wing colour is one of the most striking characteristics of the species. External head characters such as naked yellow and black skin, black wattles, differing unfeathered portions of the head, are extremely variable and are due to age, sex, "season", and individual differences (Sontag, W A Jnr. 1983: PhD thesis, Univ. Mainz, Germany). Wing-colouring also depends on sex, age and individual components (Sontag. W A Jnr. 1989: Luscinia 46: 125-163). The colours of the greater wing-coverts vary widely from blackish to white; the markings of the wing-coverts differ within a wide range tending to be

IMPORTANT

Note new address for ABBA and Phoenix; see back page.

much lighter in older individuals. Systematic observations on the wing-colouring of the individuals would provide us with some knowledge on the age structure of large groups. It would be very interesting to get information

It would be very interesting to get information on the plumage condition of individuals observed in the Arabian Peninsula.

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<u>Footnote</u>. The wattled starling occurs irregularly in Oman and has been recorded from both North and South Yemen. There are no records from UAE or Saudi Arabia, Ed.

CRAB PLOVERS BREED IN THE GULF

On 21 May 1990, we were privileged to visit the island of Abu al Abiyad (TB25) approximately 60 kms to the south west of Abu Dhabi. The purpose of the visit was to check the reported breeding of crab plovers. In recent years, as far as we know, there have not been any confirmed breeding sites in the UAE or other parts of the Gulf.

We travelled to the island, which is a privately owned nature reserve, by road and ferry. We took a track towards the middle of the island, and then followed a natural, though partially dredged, mangrove lined channel in a northerly direction.

Suddenly, we could see the black and white plumage of a large number of crab plovers on a raised sandy hillock approximately two metres above the high water mark and close to the channel. We tried to count the birds and finally put the total at about 700, but there was a great deal of movement within the flock. As we approached we could see showers of sand flying into the air from underground tunnels. Obviously, some birds were still excavating nest holes. The nest holes were rather closely spaced. probably due to the small area of the hillock.

The majority of the birds flew off along the sandy shore some 200 metres away as we approached, leaving a few adults peering out from excavated burrows. Each group returned as we circled the hillock and made our way back to the Range Rover.

There were a number of eggs lying on the surface of the sand. Two, close to the edge of the hillock were collected and found to be addled, but the others were left for fear of collapsing the tunnels. They were chalky white and both measured 65mm by 43mm.

A second visit was made on 28 June, to check the nest site. It was very difficult to estimate numbers, as birds were continually returning with large black crabs (probably Metopograpsus messor) and disappearing down nest holes. It was obvious that many young had been hatched. The adults left immediately they had fed the young, many flying into the mangroves across the channel from the nest site. It was estimated that there were up to 200 tunnels in the mound, but this number may be high.

It was not possible to judge whether all the nest holes were in use. The entrances to some holes seemed to have been fully excavated, but the tunnel ended a metre or so down. At least twenty eggs were seen on the surface on this occasion. One was collected and found to contain a small dead, partially developed, chick still in fluid. It was emptied and retained.

There were many animal footprints approaching the hillock, including red fox, Arabian hare, gazelle and rat.

We made a third visit on 26 July, when 500 plus crab plovers were counted. We saw no more than 7 or 8 juveniles, with their grey backs and wings. They were quite large and tended to crouch low on the sand at the first sign of danger. They were

then immediately surrounded by several adults to further camouflage their presence. All the other birds had more or less standard black and white colouring, though some were thought to be non-breeding birds. Some adults were returning to the nest holes with crabs, but did not seem to enter. One or two were seen to place their heads into the entrance as though calling the young to collect the food. Although obviously agitated by our presence, some birds approached to within 30 metres of where we sat.

This single mound, probably not more than 100 metres in diameter, may be the only surviving breeding ground for crab plovers in the United Arab Emirates. A similar, much larger mound was unfortunately planted with trees during the early development of the island, before its importance to these birds was realised. Just one careless move with a bulldozer could easily destroy this site and leave the crab plovers without a place to nest. However, the guardian of the island has assured us that everything possible will be done to protect the nesting site.

Maarten Verhage, Adrian Chapman and Bish Brown, Emirates Natural History Group, P.O Box 2380, Abu Dhabi, United Arab Emirates.

SURVEY OF PROTECTED AREAS AND MANAGEMENT PLANNING FOR THE NATIONAL COMMISSION FOR WILDLIFE CONSERVATION AND DEVELOPMENT, SAUDI ARABIA

The Ecology and Conservation Unit at University College, London was commissioned by the NCWCD, Riyadh, to undertake an ecological survey and to write management plans for selected Protected Areas in south west Saudi Arabia in 1988.

This provided a unique opportunity for three staff and three postgraduate students on the MSc Conservation course to spend part of March and April 1988 in Jizan Province, where we worked at three sites well known for their rich bird and mammal populations and already earmarked by the NCWCD as potential Protected Areas for wildlife.

These included the Wadi Jizan reservoir (IB11) and the associated wadi systems near Abu Arish, Jizan; the Raidah Escarpment (IA13) near Abha and the Farasan Islands in the Red Sea (HB10 and 1A10), about 40 km from the port of Jizan.

This part of the Arabian Peninsula is of particular biological interest and importance because of he confluence in the region of African flora and fauna with those of the Western Paleartic. Michael Jennings has reported in Phoenix upon his own visit to the Farasan Islands (Phoenix 5:8).

The report and management plans written for the NCWCD were based on field observations by the joint UCL/NCWCD team that visited these areas in April 1988, and the status of the birds assessed at Wadi Jizan, Wadi Juwwa and Wadi Dahin areas were combined with Michael Jennings' The Birds of Saudi Arabia -a check list and the observations of Peter Symens. Apart from the substantial populations of helmeted quineafowl for which the area is well known (we counted 350 birds in Wadi Juwwa alone during a census on 27 March 1988), there are many other species present in the area, associated either with the permanent water of the Jizan Reservoir or the adjacent wadis which make the area of special ornithological interest. Species present in nationally important numbers included little grebe, Abdim's stork, glossy ibis Plegadis falcinellus, 11 species of duck, bateleur and Gabar goshawk, spotted Aquila clanga and steppe A. nipalensis eagles, red eyed dove, Bruce's green pigeon, white-browed coucal and grey hornbills. The amalgamated list of birds for these three wadis and the reservoir included some 232 species. The area is also occasionally home for the Arabian bustard which ranges across the Tihama, the flat coastal grasslands in this area that stretch south into the Yemen.

Wadi Juwwa is under primitive, but sustainable agriculture, mainly sorghum. There are problems with the development of an integrated programme







Fig 3. Potential protected areas for wildlife in south west Saudi Arabia include mangrove fringed islands in the Farasan chain (top), the coastal Tihama plain with its Dobera glabra trees (middle and the Juniper clad Raidah escarpment (bottom).

to accommodate improvements in agriculture and the maintenance of adequate habitat for quineafowl. Unrestricted agricultural improvements were enlarging the fields and destroying the boundaries of acacia and Salvadora bushes that provide ready cover and the Dobera glabra trees that proved roosting sites.

The heavily forested escarpment at Raidah near Abha was the second site we visited and surveyed. The escarpment rises to 3000 m above the coastal Tihama, before giving way to the arid land and sands on the eastern side that stretch across the peninsula to the Gulf. The escarpment catches clouds throughout the year and the resulting local high humidity creates a cloud forest along the western edge of the escarpment. The juniper forest that once clad the summit of the whole ridge has now largely disappeared under the local demand for firewood and good forage grazing for goats and cattle. Below the summit, the juniper forest is still intact in many places. A newly created track down the hitherto inaccessible Raidah escarpment has endangered the best completely forested area, where the juniper trees are up to 18 m high, and the Commission is now concerned to protect this still pristine example of a type of vegetation that has disappeared in many places in south west Arabia. It is especially interesting because typically temperate species of plants, even ferns, mosses and liverworts occur here, mixing with truly African species, such as the Hamadryas baboon which lives in large and sometimes alarming numbers along most of the escarpment.

The Farasan Islands lie about 40 km off Jizan in the southern Red Sea and are entirely of coral, pushed up from the sea by expansion of underlying salt domes in the ocean floor. They present an outstanding complex of island habitats, both terrestrial and marine, and form a biological link between the Arabian Peninsula and Eastern Africa.

The islands, which are surrounded by pristine examples of coral reef, support a great variety of interesting and sometimes rare birds, fish and mammals. The Commissions' interest was drawn to the islands because they hold the largest single population of the Arabian sand gazelle Gazella g. arabica a beautiful and once abundant animal on the mainland, which now survives in seemingly hostile conditions, almost devoid of good browsing vegetation. Farasan Kebir is the type locality for this gazelle. The Commission teams collected a number of skulls from various sites on Zifaf and Farasan Kebir. Preliminary measurements indicate a number of differences from the mainland gazelles, and it may be that there are in fact two distinct races present. One of our tasks, in association with the NCWCD staff was to survey and estimate the gazelle populations on the two islands known to support them, Farasan Kebir and Zifaf. This was done with the use of a Civil Defence helicopter over two days, which was also used to survey the outer coral islands for seabird nesting sites and breeding beaches for the green and hawksbill turtles.

There are also extensive beds of sea grass Zostera around some of the larger islands which provide feeding grounds for the dugong. Although we did not see any of these rare sea mammals, we did see some of their feeding tracks through the sea grass beds from the air. Other mammals present on the island include a pipistrelle bat, black rat and white-tailed mongoose.

The bird list for the islands now comprise 132 species and is made up from lists provided by Michael Jennings, Peter Symens and the NCWCD/UCL visit in April 1988. The many passerines recorded at this time were of course passage migrants. However, it should be pointed out that the Farasans act as a valuable stopover to these birds; at the time of our visit even the smallest Acacia and Salvadora bushes were full of small migrants. The Goliath heron was established as a breeding species and individuals

were seen on Farasan Kebir, Segid, Seir, Zifaf, Dumsuq and other smaller islands. Ospreys and sooty falcons were common on all islands and nested very commonly on the outer islands of the group. Peter Symens' record of a blackshouldered kite was a new addition to the list of raptors for the island which includes three harriers (hen harrier Circus cyaneus, marsh harrier C. aeruqinosus, and pallid harrier C. macrourus), sparrowhawk Accipiter nisus, kestrel and common buzzard Buteo buteo. Crab plovers, sooty gulls and white-eyed gulls were nesting on the outer islands and it is clear that these sites are important in the southern Red Sea for these restricted species.

Other notable species include the African collared dove, the Namaqua dove, Bruce's green pigeon, Nubian nightjar, grey-headed kingfisher and the white-browed coucal.

The isolation and relative lack of disturbance on the islands can provide the opportunity to assess the present status of populations of gazelles, marine life and mammals, as well as the undoubtedly rich marine life. This together with the strategic position of the islands in the Red Sea and the consequent controls by government on their economic use and development, should enable them to conserve and protect the existing communities relatively easily. Their natural isolation is obviously important in achieving this, and it is hoped that the Commission may be able to create special reserve status for the whole of the Farasan Island group, integrating the marine habitats and their coral reefs with the needs of the local fishermen, and on land with gazelle and their inevitable competition with feral goats and camels. The opportunity also exists for specialist field research as well as for the development of recreational benefits for the islanders.

The technical co-operation of the UCL Ecology and Conservation Unit with the NCWCD in this project provided us and our students with a unique opportunity to put our methods of ecological survey and analysis for management planning into practice in areas quite different from our own in Britain. The resulting reports now stand as locally worked examples for the NCWCD to adapt and use for its own national conservation requirements. The staff and students of the UCL unit are especially grateful to the NCWCD for enabling them to participate in this project and to have the opportunity to travel and work in the Kingdom of Saudi Arabia in the cause of wildlife conservation.

Roderick Fisher, Ecology, and Conservation Unit, Biology Department, University College, University of London, Gower Street, London.



Fig 4. Crab plovers bred in the UAE for the first time in 1990.

SITES OF INTEREST

Those who have tackled atlas work know just how fulfilling a pursuit it can be. The common birds can be ticked off in each new square visited, the absence of expected birds becomes intriguing and a challenge and the presence of unexpected birds is always exciting. On subsequent visits to a familiar square, one can try to upgrade the previous BEC's obtained. Because of this all sites can be of interest to the atlasser. The following site notes seek to detail the variety and diversity of bird habitats throughout Arabia and the representative birds to be found in each. It is not meant to be a "where to watch birds in Arabia" or a directory to the most prolific bird sites, although inevitable, some sites are exceptionally good.

Observers are asked to submit reports of other interesting sites or those that they have studied reasonably well, drawing special attention to the breeding and resident species occurring. A site may be as small as a sewage pond or other microsite, an urban area or as large as a mountain range.

OARNEYN ISLAND, UNITED ARAB EMIRATES

The island was visited on the 20 and 21 April, 1989, by 12 naturalist from the Emirates and Dubai Natural History Groups at the invitation of H.H. Sheikh Hamdan bin Zayed al Nayhan, the island's owner. The purpose of the expedition was to gather and collate information on the island's wildlife, with particular attention to its current status as an important nesting site for large numbers of seabirds.

Qarneyn Island, which is 2 km long, is situated at 24°56'N, 52°51'E (SB26, 180 km west-north-west of Abu Dhabi. Das Island (SB27) 25km to the north is clearly visible, and the 150m peaks of Zirku Island (TA26) can be seen 20 km to the east. (Details of Das Island can be found in Phoenix 5:5-6). The weather was calm, though slightly hazy during our visit.

The International Council for Bird Preservation published a report on the distribution and status of seabirds around the Arabian Peninsula (Gallagher et al, 1984) and concluded that large numbers of rare and important seabirds are currently threatened by a number of factors. The expansion of oil and related industries is causing an acceleration of social and economic changes. Coasts and islands are being used increasingly by industry, defence and urbanisation. Threats to seabirds by disturbance, pollution and removal of habitat are now a serious problem in the southern Gulf region, where 7 species, some endemic to Arabian shores, are currently at risk of local extinction. Qarneyn Island is the last undeveloped refuge for all of these species, and even our short visit to the island was sufficient to realise that the ecology is very fragile. Further development, if carefully considered, may cause minimal risk to the bird populations, but human intrusion of any kind can only have a negative effect on the bird colonies.

Seabirds found or known to breed on the island are as follows:

Red-billed tropicbird

Probably the most interesting and least known of all the species found on Qarneyn Island. This species (Sub-species indicus) is known to breed only around the costs and islands of Arabia. In the UAE breeding is only confirmed on Arzanah (SB26), Zirku and Qarneyn Islands. There is no recent information from Arzanah Island, where 100 pairs were reported in February 1975. The most recent information from Zirku Island recorded only 3 nest in 1981 which compared very unfavourably with the record of 500 birds present in December 1972 (J Stewart-Smith). This indicates a very serious situation, possibly resulting from the industrialisation of Zirku Island.

We discovered the species on Qarneyn Island at three locations. The two largest peaks were circled by approximately 60 adult birds each, actively chasing and screaming from dawn until 11.00am. Smaller numbers were present in the late afternoon. The third peak was less craggy and had only about 10 tropicbirds circling. Two nests were found each of which had an adult inside, presumably incubating, though this was not established. From previous observations in 1984 (Foxall 1985 ENHG Bull 27:5-10) this season's nesting appeared late, as chicks were then present in February. We saw only adults flying and assumed no birds had yet fledged. It is known that this species will vary its nesting period, in response to food availability.

There appeared to be no direct threats to this species at this time. However, it should be understood that the number of birds in the colony is probably a direct result of the available nest sites. There appears to be a critical shortage of these, as birds have been reported nesting under hollow stones in flat areas, and even near the high-tide line. The two craggy hills are the focus of the colonies, and should they be developed in any way the species will decline. If the birds are forced to lower ground, they are under threat from sooty gull predation, and from being run over by the alarming number of vehicles now on the island.

Socotra cormorant

This species now has no safe breeding areas in the Arabian Gulf. It requires uninhabited islands for safety, and is very susceptible to disturbance by aircraft, helicopters, humans and building work. As a fish eater it is also susceptiable to marine pollution, and colonies can disperse quickly and prematurely in the event of food shortage leaving their young to die from starvation. Its breeding period is usually late in the year, often starting in September, and the timing of the chicks appears to coincide with an abundance of fish migrating around the southern shoreline of the Arabian Gulf.

Breeding was not recorded in 1984 (Foxall, 1985), although 10,000 birds were reported here in February 1975 during the nesting season. Nearby Zirku Island has been the Gulf's largest and most important breeding site, but there are unconfirmed reports that this year the birds were ejected from the island due to the fear of the cormorants's parasitic tick reaching the workers in the industrial complexes. This is a serious situation. We found about 900 birds regularly around the island, some flying in flocks of up to 50 in V-formation, others roosting on offshore rocks to the north-west and north-east. Most were immature birds with brown wings and pale bellies.

The Socotra cormorant usually breeds on the north-west side of an island coastline, for reasons which are not obvious, but one result is that it can take flight easily to sea into the prevailing north-west wind. We noted that an area of about 20 hectares on the north-west of the island, had been bulldozed, and machinegraded. The top surface, which was formerly covered in cormorant guano had been pushed into the sea, apparently due to the offensive smell invading the owner's house. In addition to destroying large quantities of guano, which is valued highly as fertilizer, this has destabilised the top surface, much fine sand and dust was blowing around and it was reported to have gone into the goal and shoked some of the have gone into the sea and choked some of the coral. On my own previous studies at cormorant colonies I had found that there was little or no smell associated with a Socotra cormorant colony. This is confirmed by Howe 1989 (ENGH Bull 37:20-22). This area is the most obvious breeding site for the cormorants, but there was no evidence left for us to examine. In view of threats elsewhere on its favoured breeding sites, it would be of great value to encourage this species to re-establish itself on the island, which may be critical to its future survival in the Gulf.

Sooty gull

We found this species to be the most widespread on the island. We found nests in a variety of locations, but mostly the scrapes were made on open ground, amongst stones, or on sandy areas and sometimes adjacent to a small shrub or larger rock, but always well spaced. Many scrapes were still without eggs. Of nest with eggs we found laying was quite advanced with about 30% of all nest found to have the usual complement of three eggs. 40% had one egg, and 30% had two eggs.

The population appeared to be greater than when last recorded in 1984 (Foxall 1985) when the winter number of 100 increased to 200. We estimated that there were 400 birds on the island. This species feeds its young almost entirely from the tern colonies which we noted were beginning to form, though not yet laying.

Qarneyn Island is one of only three known breeding sites of the sooty gull in the Arabian Gulf, and is therefore critical to their survival in the area. The other island sites of Zirku and Sir Abu Nuair (UA27) are already being developed. Our concern over the increase in numbers over the last few years, and their prospective increased predation on the tern colonies, were balanced by a concern for their nests and their exposed siting. The nests were likely to be regularly flattened by the increasinguse of vehicles on the island. Tyre tracks were found in places were vehicles need not go. We feel strongly that the use of vehicles should be limited and restricted to set routes where possible. A possible reason for the increase in numbers of sooty gulls this season (compared to 1984) is that they hve been driven away from other island sites. This puts the onus on the protector of this island to retain this site, as one of the last breeding grounds of sooty gull in the Gulf.

Crested (swift) tern

We found only small numbers, about 250 counted (often mixed with the lesser crested tern roosts), involved in noisy courtship chasing around the northern rocky shorelines. They appeared to form separate night roosts, although at times it was difficult to separate them in the field. They favoured two areas of low rocks just above high water, about 20 m from shore, on the north-west and north-east sides, adjacent to two of the peaks favoured by the tropicbirds. We noticed that they were often engaged in high level chasing, in pairs, and were very vocal. Colonies had not yet formed.

We understand from Ian Foxall, who was on duty at the radio station, that in 1984 they joined together in tight, though distinct, colonies with lesser crested terns laying simultaneously in early or mid May. Crested terns were outnumbered by lesser crested in 1984, and appeared to be so in 1989, by a factor of about 5:1.

The fact that this species was greatly outnumbered by lesser cresed terns was unfortunate, as we understand this species suffered total losses in 1984 due to egg-collectors removing their single egg, putting the species' future on the island at risk. With the combined effect of egg-collecting and predation by sooty gulls, this species is now endagered as a Gulf breeding species. There are only four other nesting sites in the UAE which are also at risk.

Lesser crested tern

This was the commonest species on the island. We found 1,300 birds present, mostly at two noisy roosts, a nightime and morning roost on some offshore rocks to the north-west, and a similar roost in the afternoon on the north-east side. Egg-laying had not yet commenced but from numbers already present this was clearly one of the largest colonies of this species in the Gulf. In 1984 egg-laying commenced on 18 May (Foxall 1985).

We did not know where the colony would be located, but undoubtedly the position of the newly built house would influence their choice, as it overlooks most of the level areas nearby, which would be ideal nest sites. Human disturbance can cause havoc in the colony (Foxall 1985) and it is therefore recommended that no approach be made by man or vehicle to the birds during their nesting period, as they may desert, and eggs would be taken by sooty gulls.

White-cheeked tern

No white-cheeked terns were recorded. In 1984 numbers were present in late April (Foxall 1985). Perhaps in 1989 we were too early, or there may be fluctuation in their arrival each year affected by food availability. These birds are reported to nest throughout the island, the early arrivals take the prime sites and the colonies may total several thousand birds.

The major threat is human disturbance, by walking or vehicle approach, and by careless misuse of the existing tracks. Driving should be restricted to set and fenced routes, wandering around the colonies by workmen or staff must be prohibited.

Bridled tern

This species is a visiting breeding species from the southern oceans and has different nesting habits to other terns. It is also one of the most threatened seabird species of Arabian shores. We found several hundred birds were already roosting at night on the island but we only saw one by day. They were roosting at the southern end of the island on the tops of low shrubs. Their alarm call was a loud grating-like "drrrr rrr" and quite erie at night.

This species nests all over the island, including amongst the boulders and in the sandy scrub. In 1984 they paired up immediately on arrival, dispersing throughout the island (Foxall 1985), but during April 1989 there was no sign of them by day and we suspected nesting had not yet commenced.

Similar threats apply as with other breeding terns especially the problem and control of human disturbance.

Colin Richardson, P.O. Box 2825, Dubai, UAE.

KHOR KALBA (WA27) AND SURROUNDING AREA, UAE EAST COAST

The following 'site of interest' is taken verbatim from Colin Richardson's recently published book The Birds of the United Arab Emirates (see review later). The sketch and map, Fig 5, are typical of those illustrating Colin's site guides, but are shown here half of actual size.

"Khor Kalba is 12 kilometres south of Fujeirah, facing the Gulf of Oman. By far the most interesting site along this stretch of coastline, it is unique in many ways; not least of which is its area of extensive mangroves which thrive in the slack tidal flow on the upper reaches of the khor beyond the natural harbour.

This is the home of the White-collared Kingfisher, generally rare and localised in Arabia, and here belonging to distinct subspecies found only in the Kalba mangroves. Best seen at low tide when it ventures on to the exposed mudflats of the inner lagoons, hunting from exposed perches on the southern side of the mangroves. No more than about twenty birds have ever been counted, so it is undoubtedly threatened, and measures must be taken soon to preserve its habitat.

Little Green Heron, Clamorous Reed and (probably) Booted Warbler breed in the mangroves too, their calls echoing amongst the thick vegetation, and competing with the screeches of the kingfishers.

The sheltered khor hosts a number of other

interesting wintering species, including Indian Pond Heron, Little Egret, Great White Egret, Greater Sand Plover, Whimbrel and Terek Sandpiper. European Kingfishers are likely to be seen on low perches along the length of the Khor, while Osprey and Marsh Harrier may hunt over the mangroves in search of food. Several species of tern including White-cheeked, Lesser Crested and Swift Tern are seen frequently around the breakwater at the harbour mouth. An indian Skimmer occurred here in January 1988, a first record for the country.

Inland, at the edge of the gravel plains, are a series of pools. This is good habitat for Temminck's Stint, Common Snipe, Redshank, Greenshank, Green, Wood and Common Sandpiper from August to April, with a good mixture of additional passage waders in spring and autumn including Collared Pratincole, Ruff and Spotted Redshank. Stone Curlew is a regular autumn visitor. In addition Citrine Wagtail, Water Pipit and Desert Wheatear have wintered amongst the adjacent scrub. Red-wattled Lapwing nest here from March to June and Black-winged Stilt raised young, recorded for the first time in 1988.

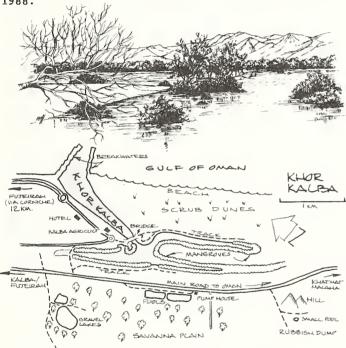


Fig 5 Khor Kalba UAE and how to get there.

The savannah plains adjacent to the foothills often provide a whole batch of different species. Little Green Bee-eater, Indian Roller, Pale Crag Martin, Yellow-vented Bulbul, Arabian Babbler, Purple Sunbird, Great Grey Shrike and Indian Silverbill are resident, while Pallid Swift, Black-crowned Finch Lark and House Bunting are present for most of the year. In spring Pale Rock Sparrows feed on the stony plain in small groups, and visiting Yellow-throated Sparrows nest in summer.

It is a good place to find Blue-cheeked Bee-eaters which are abundant in spring and autumn, some also breeding. Many head for the mangroves to roost at dusk.

Water-filled quarries and rubbish dumps on the plains behind the khor are also important sites where numbers of wildfowl and grebe overwinter. Black-necked Grebe is present some years November to March and Little Grebe may occur for most of the year, breeding when favoured conditions prevail. The biggest lake can be found amongst the tres on the inland side of the Oman-bound road.

Little detailed study has been done of the area, and much remains to be discovered about its abundant birdlife. Great Knot was first recorded here in autumn 1986, and other rare vagrants are likely to occur."

WABBAH CRATER CENTRAL SAUDI ARABIA

Wabbah Crater (HA22) is a dramatic natural feature of the Harrat al Kishb in central Saudi Arabia, 100 km due north of Radwan on the Taif-Riyadh highway. It is a vast hole 2 km across with a rim of 250 m high cliffs. Its sheer sides allow access on foot only in one place on the northern lip, where a small water seepage supports a green spot of plant life and an abandoned date garden. The centre of the crater is a barren flat of evaporated alkaloids (which becomes a lake after rain) but around the scree edge there are a number of Acacia trees and bushes and thickets of 'toothbrush tree' Salvadora persica. I visited the crater on 25 and 26 March 1986 (ABBA Survey No.2) and found 21 species of resident or breeding birds, considerably more than are found in the surrounding desert lava fields. Breeding species include the Nile Valley sunbird and African silverbill, which are at their easternmost range here.

Sand partridge, Egyptian vulture, Namaqua dove, pallid swift, rock dove, pale crag martin and white-crowned black wheatear almost certainly all breed. Breeding was proven for Arabian babbler and palm dove. African collared dove are on the edge of their range here but the European collared dove have not yet reached the area, although they almost certainly will do so in the next year or two. Blackstart and yellow-vented bulbul, scrub warbler, house bunting and several more common species also occur.

The value and interest of Wabbah Crater is that it holds probably all the common resident birds of central Saudi Arabia in one small site. It is a scenic site that would make an ideal study centre for Arabian biology. Its natural protection from predators and hunters would also make it an ideal site for the release of larger wildlife such as gazelle in a natural environment.

M.C.J.

RECENT REPORTS

Some reports received are especially interesting on account of the species, location, habitat, period of breeding or the number of birds involved. The following are a selection of some of the more interesting, unexpected or unusual records received within the last 12 months (some relate to earlier years). Records of unusual birds often get reported by more than one observer and although care is taken to credit records as appropriately as possible, it is regretted if the original finder of a rare bird is not identified here.

Abdim's stork. 139 counted together, possibly migrating, JA07 Republic of Yemen, 28 August 1985 (M.I.Evans). Largest group recorded in Arabia.

Greater flamingo. 150 building mud nests south of Jedda in August 1989. The nests were later washed away by high tides (P.Symens).

<u>Lappet-faced vulture</u>. 35 birds seen in one square north of Hanakiyah central Arabia May 1990, including 22 together at a dead sheep (MCJ).

<u>Golden eagle.</u> Several records in central Arabia May 1990, including a just fledged chick in HB29 (MCJ).

Spur-winged plover. Eggs near Tabuk (DA33)
April, 1990 (A.J.Stagg).

Chestnut-bellied sandgrouse. Several records from the Gulf coast of the UAE (VB24, TB25 and VB27) during March-June 1990 were the first records from these areas (Emirates Bird Report No.12, 1990). At the other extreme of their Arabian range they were found in May 1990 inland at the western Arabian highlands near Medinah (GA26, GA25 and GB25) all new localities for the species (MCJ).

African collared dove. Heard near Afif (IB25)

central Arabia May 1990 (MCJ). 200km further east than previously recorded.

Eurasian collared dove. The first record from Qatar was only reported in 1990 (R Nation) although subsequent enquiries show they have been present in Qatar since about 1985/86. Any old Qatari records would be very much valued. Found 150 km further west than previously recorded in central Arabia during May 1990 (MCJ).

Turtle dove Breeding over a wide area of central Arabia, May 1990 (MCJ). Probably a much more common breeding bird than previously thought, clearly few observers are getting into the desert at the time they are breeding.

<u>Barn owl.</u> Examination of pellets collected on Bahrain reveal the presence of Savi's pygmy shrew Suncus etruscus for the first time in the Arabian Gulf (P Bergier, L'Oiseau et RFO 58:147).

Little owl. Nest with three young in hole in the ground (an old burrow) in Rupublic of Yemen (KAO8) July 1985 (P Bisset via M I Evans). First Yemen breeding record. One Qatar (QB28) March 1990 (R Nation).

 $\underline{\text{Pallid swift.}}$ Young heard at nest crevice Qatar (QB28), March 1990 (R Nation). First Qatar breeding record.

Alpine swift. Breeding in granite hills near Kabshan (JA26) central Arabia, May 1990 (MCJ). A completely new breeding area for this species.

White-throated bee-eater. One Jebel Ali VA27) near Dubai, UAE 20 November 1989. An extralimital sighting of this south west Arabian species; (J Bannon in Gazelle (4) 12:3).

Short-toed lark (Calandrella brachydactyla). Pair, with male singing and holding territory, Umm al Quwain (VB28), UAE May and June 1990. May have bred (M Pitt, J Bannon, C Richardson). This species has not yet been proved to breed in Arabia.

 $\underline{\text{Yellow-vented bulbul.}}$ Absent from greater part of central Arabia between Tuwaiq Escarpment and the harrats in the west, May 1990 (MCJ).

Mourning wheatear. Pairs with food begging juveniles near Sulaymi central Arabia, May 1990 (MCJ). 300km from nearest previous breeding record.

White-crowned black wheatear. Found in the interior of Republic of Yemen (LA07) August 1985 (M I Evans).

Hooded wheatear. Two pairs Jebel Hafit (VB25)
UAE, May and June 1990 (C Richardson). Indicates
breeding in UAE.

Booted warbler Singing March-June 1990 Khor Kalba mangroves (WA27) UAE (C Richardson). First probable breeding record for some years.

Trumpeter finch. Two at Jebel Hafit (VB25) UAE, May 1990 (C Richardson). A rare breeding season record for UAE.

WHAT SPECIES ARE THESE?

There comes a time in the progress of every atlas project when maps are filling in nicely and the project newsletter cannot resist a quiz testing the reader's ability to guess, or work out, the identity of species figured in unmarked draft distribution maps. Phoenix readers are spared this cliche no longer! Shown adjacent atFig 6 and 7 are the draft maps at two Arabian breeding species compiled from all the ABBA reports received so far. Neither draft maps gave been published before. What species' distribution do they represent? Not many readers are likely to have the geographical, geological, botanical and climatic background knowledge to be able to work them out - so have a guess. The answers are over the page.

The map at Fig 6 shows one of the more unusual distribution maps of all species dealt with by the ABBA project; the distribution follows no clear pattern and the species does not occur at all in north west Arabia. There are very few records from the Empty Quarter (may be that is observer bias) or from large parts of central Arabia. Note the distinct band of records across Saudi Arabia and that it is largely absent from highland zones. The second map, Fig 7 shows a species with a distribution that, with numerous

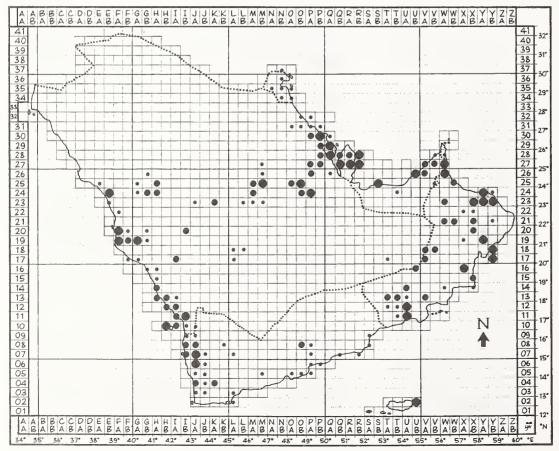


Fig 6 See "What species are these".

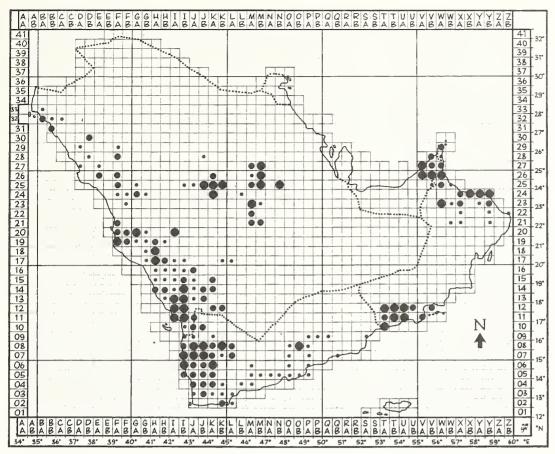


Fig 7 See "What species are these".

small variations, occurs again and again in the draft maps. It is present in the northern UAE, north and south Oman (but not in the desert plains between). south west Arabia and the highlands of western and north west Arabia. An isolated population occurs in the region of the Tuwaiq Escarpment and sparingly elsewhere in central Arabia. It is absent from the Empty Quarter and eastern Saudi Arabia, north to Kuwait. On both maps the large dot is confirmed breeding, the middle-sized dot is probable breeding and the small dot represents other records.

PROGRESS SO FAR

Brown-necked raven

Probably the most widespread bird in Arabia, the brown-necked raven, is found on some offshore islands, at the top of the highest mountains and in the remotest of deserts. Because of this wide range, records collected for this species give a good indication of the coverage so far achieved by the project. The up-to-date position for this species can be seen at Fig 8. A good number of squares have been blanked in and others upgraded since the similar map which appeared in Phoenix 6 but there are still large parts of Arabia which have not yet been touched by atlassers. If there is no brown-necked raven record for a square then the chances are there are very few other records from the same locality. Active atlassers should, therefore, make special efforts to get to the blank squares and report their findings.

NEW BOOKS

In this column it is hoped to give details of all new books which are, in some way, relevant to the study of birds in Arabia or to the Arabian/Middle Eastern environment generally. Most titles mentioned are available in good book shops in Arabia, Europe and North America. Others are on restricted distribution or privately published and those wishing to obtain copies should contact the author, publisher or distributor mentioned. Those ordering through a library or some other agent are best advised to quote the ISBN or ISSN number shown. The prices given are published prices, which sometimes include post and packaging. In general, recommendations made about the worth of books are based on format,

content and standard of preparation. A recommendation does not necessarily mean good value for money. Readers are asked to provide details of new books not mentioned in this survey.

BIRDS OF THE EASTERN PROVINCE OF SAUDI ARABIA by G Bundy R J Connor and C J O Harrison, 1989.

This is probably the best book that has appeared so far on the birds of Saudi Arabia. An authoritative text backed up by excellent photographs. The comprehensive introduction deals well with the ornithological history of this part of Arabia, especially the part which has been played, and continues to be played by amateurs. The preliminary chapters which make up one third of the book give a detailed introduction to the Eastern Province, its landscape and surface types, climate and vegetation. There is an essay on the origins of Eastern Province birds from the Miocene to the present time - the best account yet on this aspect of Arabian ornithology. Notes on the faunal sub-divisions of birds found in this part of Arabia and the special needs of birds in this mostly arid region are inspiring. Notes on nomadism, temperature control, water loss control, and plumage colour and structural adaptions related to the arid environment are lengthy but essential reading. There is a chapter on man and birds, dealing with bird hunting, egg harvesting and other aspects of folklore including, of course, falconry. In the systematic list section one finds introductory notes on each family including the number of species occurring in the area and identification problems within the family. These are followed by species accounts of one or two paragraphs providing information on breeding months, nest and egg details, egg description as well as status, movements, habitat and habits of each species. There are four appendices. The first is a check list showing the status of all species occurring in the Eastern Province; the second lists the 127 migrant species occurring there, giving an indication of their relative abundance in spring and autumn; the third is a gazetteer showing geographical co-ordinates of places mentioned in the text and the fourth is a selection of histograms showing humidity, rainfall temperature and temperature range at various places in the Eastern Province. The

extensive bibliography is, rather confusingly, split into subjects/species areas. There is a scientific and common English names index. The book is illustrated with two maps and 150 colour photographs, most of which are of excellent quality, many depicting rarely photographed species. Although the text has generally been updated to late 1988 this book has been "in press" for so long that many people thought it would never appear. However, the work of this excellent team has stood the test of time and the book will clearly be a standard reference for this part of Saudi Arabia and generally for the birds and Bahrain , Kuwait, Qatar and parts of the UAE for many years to come. Highly recommended.

Hardback, 224 pages (279 x 216mm), price £35.00. Published H F & G Witherby Ltd, in association with ARAMCO, 14 Henrietta Street, London WC2E HQJ. ISBN 0-85493-180-5.

THE BIRDS OF THE UNITED ARAB EMIRATES by C Richardson, 1990

The immediate impression one gets of this first book of the birds of the Arab Emirates is one crammed full with sketches, maps, diagrams and lots of colour photographs. It is a guide to the birds of the United Arab Emirates in the fullest sense of the word, what can be seen, where to see them and their habitats and is written by the them and their nabitats and is willten by the local expert who has many years field experience in the UAE behind him. It is totally up to date but also call upon many historical records gathered over many years. The book starts with a gathered over many years. The book starts with a yearly review of what birds can be seen and where in each month, their status, breeding and aspects of migration. There is then an overview of habitats and what species may be found in the deserts, coasts, mudflats, parks, gardens, mountains and wadis. Probably the most helpful section to visiting and resident birdwatchers is a chapter on where to watch birds in the UAE detailing, for 20 chosen sites, what birds can be seen at each time of the year and how to find the Site descriptions are backed up with excellent sketch maps. These site guides will enable even the briefest of visitors to the region to find good sites and see plenty of birds. The main chapter of the book deals with the 360 odd species that have been recorded in the United Arab Emirates, which include no less than 321 migrants or visitors and some 67 breeding species. The species accounts are short and succinct, up to about seven sentences per species, covering status, numbers months of occurrence, habitat, habits and, where appropriate, notes on world breeding range, similar species etc. To save space the author has chosen, sensibly, to leave out detailed descriptions except where local races require it, in any event detailed descriptions can be found in several books now available which cover this part of the world. For the 67 breeding species there are excellent maps which show the areas where the birds breed on a widespread basis, where they are thinly distributed and isolated breeding records. For the migrants there is a very easy to understand calandar bar to show the months each bird is found, indicating when it is regular, irregular, rare or unknown for each migration period. The species accounts are backed up by 250 fine sketches by Bill Morton and there are three blocks of colour plates which depict 101 species, other colour plates show local habitats. A number of other sketches of sites by Margaret Henderson are also included. At the end of the book are lists which show details of some 35 additional species which have not yet been accepted to occur naturally in the UAE and a further 32 species which are known to be escaped or deliberate introductions. The book is finished up with a useful reference list for

Answer to "What species are these?" (see previous page). Fig 6 shows the distribution of the black-crowned finchlark and Fig 7 that of the little green bee-eater.

further reading, indexes and maps of the UAE on the end papers. Highly recommended as a guide to the birds of the UAE.

Laminated card covers, 200 pages (225 x 150mm) price £15.00. Published by Hobby Publications, 11 Walton Heath Road, Warrington, Cheshire WA46HZ. UK. ISBN 1-872839-00-2.

A PRELIMINARY LIST OF EGYPTIAN BIRD RINGING RECOVERIES, 1908-1988 by W C Mullie, E E Khounganian and M A Amer, 1989

The authors introduce this booklet as a supplement to the Birds of Egypt (reviewed in Phoenix 6). It details over 800 recoveries of birds ringed in Egypt or of foreign ringed birds found in Egypt. The greater part of the book is devoted to a species list which provides details of each record in the usual ringing report format, that is location and date of ringing and recovery, ring number etc. In addition there are some 35 excellent maps illustrating the movements of individual species or species groups. The maps show that migrant birds arrive in Egypt from throughout Eurasia; from as far west as the British Isles and as far east as Soviet Central Asia and Siberia. From Egypt, birds disperse into the length and breadth of Africa. The most commonly recovered bird in Egypt is, not surprisingly, the white stork for which there has been a ringing tradition in Europe for many decades now. A total of 321 white storks, almost exclusively from the central European zone, have now been recovered in Egypt. Other species with over 50 Egyptian recoveries include pintail (57) mainly from the USSR, quail (100), slender-billed gull (212) mostly from the USSR, lesser black backed gull (54), Caspian tern (79) mainly from Finland and Sweden, white wagtail (69) and lesser whitethroat (52) including several from the United Kingdom. The booklet has 134 references and gives many indications on the origins and wintering ranges of migrants occurring in Arabia.

Card covers, 77 pages (A4 size). Price 15Dfl or £5 (incl p&p). Available from the Foundation for Ornithological Research in Egypt at Thorbekestraat 200, 6702 BX Wageningen, The Netherlands.

SNAKES OF THE ARABIAN GULF AND OMAN by M D Gallagher, 1990

This little booklet contains all the information that most people need to know about snakes in the Arabian Gulf region. It is an illustrated guide to the nine sea snakes and 21 land snakes that occur in the Arabian Gulf States and Oman. contains notes of how to avoid the dangers of contact with some of them, and what to do if you are bitten. Despite the fact that all nine sea snakes are venomous and nine of the land snakes are too, fatalities by humans are rare. We learn that five drops of venom of the local vipers can kill an adult man whilst it only takes three drops of cobra venom to do the same. Compare this with sea snake venom and one finds that one drop of that is enough to finish off five adults! It is only a little reassuring to find that most sea snakes are not aggressive. Introductory notes deal with serpentine structure, breeding, diet etc and than the main section of the book divides snakes up into "dangerous", "mildly toxic or harmless" and "harmless". A sensible enough division for this non-technical but very well written hand guide. For most of the species there is a good quality, full colour photograph (39 colour photos in all) and the text gives the English, scientific and Arabic names, notes on the family, degree of danger it represents its habits, description, length and, where appropriate, notes on range and altitude. The book is backed up by other sketches and a map. The back cover gives some helpful hints on the prevention and first-aid of snakebite. A very useful little booklet which will be of interest of virtually everyone in the Gulf region, especially those who venture regularly into the

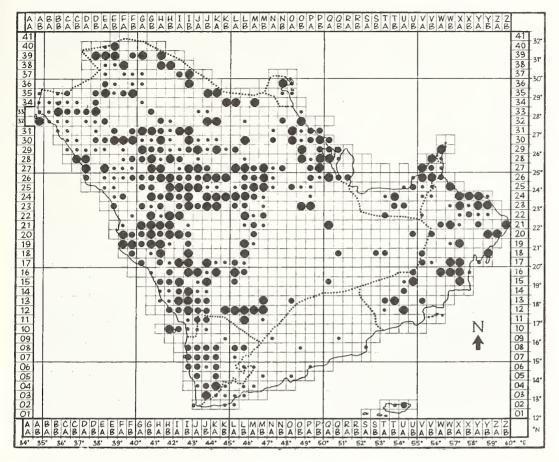


Fig 8 The brown-necked raven is the most widely recorded breeding bird in Arabia. See "Progress so far".

- Confirmed breeding
- Probable breeding
- Other records

£1.50p. Available from the author at PO Box 668, Muscat, Oman or The Family Bookshop, P.O. Box 3376, Ruwi, Oman.

<u>SEASHELLS OF SOUTHERN ARABIA</u> by Donald & Eloise Bosch, 1989

This attractive guide to the shells of the Arabian Gulf and Gulf of Oman is an excellent first book for shell collectors in the region. The authors, who have over 30 years experience of Arabia, create a reference which is both simple in format yet authoritative. The introductory chapters give hints and methods for collecting The introduction also contains a classification table of shells, the species dealt with and the name of the various parts of a shell, all aimed at helping the beginner get better value from the seashore. Because the seashore and shallow waters around Arabia can be a hazardous place there is a very necessary section on the dangers and hazards that may be encountered. Everyone knows about sharks barracudas but there is also a range of smaller unpleasant creatures, corals, as well as some shells which can bite, sting, stab or merely irritate. Novice shellers should certainly make sure they can recognise a cone shell, which has a very dangerous, occasionally fatal sting. Most of the book is taken up with short descriptive texts of each family occurring in the area, with individual paragraphs on selected species within the family. Details are given of the habits, habitats, feeding methods, description and colour, similar species and interesting facts about each. The identification section of the book is illustrated by approximately 100 him. book is illustrated by approximately 180 high quality close-up, colour photographs of those species described in detail, with often three or more views of each shell per photograph. It is a very well designed book and all the introductory chapters and the species accounts are translated into Arabic. It is therefore equally valuable to Arab shell enthusiasts who do not read English.

Laminated card covers, 124 pages (198 x 275 mm), price DH60/R.O.6. Published by Motivate Publishing, P.O. Box 2331, Dubia UAE, with the support of Shell Markets (Middle East) Ltd.

THE LIVING SEAS - MARINE LIFE OF THE SOUTHERN GULF by Frances Dipper and Tony Woodward, 1989

This excellent book is another in the fine series of guides from Motivate Publishing of Dubai. A very colourful introduction with lots attractive photography at an affordable price. The authors have both spent many years studying marine life in the Gulf region and have put together this fascinating account as introduction to the diverse, weird and wonderful life forms found on the Arabian Gulf shore, on its coral reefs and in the open water. authors narrative is often anecdotal giving details of their personal adventures and experiences of diving and beach-combing in the Arabian Gulf. It has an attractive, irresistible quality to those who are interested in marine life, and amateur scuba-divers, beach-strollers or armchair marine biologists. The book is arranged to display the life forms found in each broad habitat, rather than attempt a tedious systematic approach. Under 'sand and mud' we find the myriad and beautiful forms of crabs, starfish, sand-dollars. Under 'rocks and reefs' are the incredibly colourful corals, fishes, anemones etc. A special chapter deals with the life forms found around wrecks and other artificial reefs and goes into some detail about how marine life communities take hold, dominate and eventually succumb these artefacts. In the 'open sea' section we find out about jellyfish, dolphins, turtles and the like. Because the undersea world is very much a world of mystery and danger for many of us, the authors go to some lengths to describe the various threats and dangers lurking under and on top of the waves and how to treat injuries. For example, hot water on the affected area is one of the best treatments for wounds from poisonous fish and sting rays. The final chapter on pollution and the protection of marine life covers pollution in all its forms and special threats to fish, especially from spearfishing and the thoughtless discarding of nets etc. This book is illustrated throughout by many very good quality, full colour photographs, at least one, often two per page. Recommended.

Laminated card cover, 95 pages (200 x 272 mm).

Price Dh60. Published by Motivate Publishing, P.O. Box 2331, Dubai, UAE; with the support of the Gray Mackenzie Group of Companies.

THE BUTTERFLIES OF EGYPT by Torben B. Larsen, 1990

The ancient Egyptians were the first people to depict butterflies in art some 3500 years ago but until now there has not been a book specifically on the butterflies of the country. Egypt is a land of 1,000,000 sq.km, but because the climate is not conductive to butterfly survival, and plant life is limited to a small range of crop species and impoverished desert biotopes, relatively few butterflies are to be found in the country. There are only 58 species recorded and many of these are only found at the edges of the country, such as the Mediterranean coasts, Sinai, and Jebel Elba in the extreme south east. author is a Dane with 20 years study of Middle Eastern butterflies to his credit, having already authored books on the butterflies of Lebanon, Jordan, Oman, the Yemen and Arabia generally. this book he aims to bring together all knowledge of Egyptian butterflies. As might be expected and major part of the book is taken up by the systematic list of species. For each the scientific names of species and races are given, but unfortunately, English names are not used at all. General world distribution, and local disribution within Egypt is provided along with details of taxonomy and relationships to other species found within the region. Habitat, breeding strategy, food plants (of adults and Habitat, larvae), sexual dimorphism, status and migration are discussed as appropriate. In the general chapters the author gives us background notes on Egypt and a history of butterfly research in the country. In the biogeography section we learn that 22 of the 58 species are palearctic in origin, 13 are afrotropical and 11 eremian, endemic to the great desert belt that stretches from Morocco to central China). Endemism in Egypt itself is limited to three species and two races. General distribution of butterflies is dealt with under the seven ecological zones of Egypt which the author recognises. These are, the Mediterranean coastal strip, the Western and Eastern Deserts, upper and lower Nile, Jebel Elba and Sinai. Migration is particularly important in respect of Egyptian butterflies and no less than 22 of the 58 species occurring are migratory, winter visitors or opportunistic nomads. Pest problems are dealt with in a separate chapter. The main illustrations of the book are eight colour plates, two of which have five habitat photographs and the remaining six aims displaye of butterflies. These have between give displays of butterflies. These have between 8 and 37 views of butterflies to each plate showing male/female variations, and views from above and below. For many species there are three views. The colour plates of buterflies appear to be very fine detailed paintings, but on closer inspection it is clear that they are in fact photographs of specimens very expertly prepared. Other illustrations include maps and a number of black and white plates of butterfly habitats. very readable book with excellent colour plates, recommended to all those who are interested in Middle East butterflies.

Hardback, 112 pages (246 x 172 mm), price 240 Danish Kroner. Published by Appollo Books, Lundbyvej 36, DK-7500 Svendborg, Denmark. and the American University in Cairo Press, 113, Sharia Kasr El Aini, Cairo, Egypt. ISBN 87-88757-14-5 and 977-424-218-1.

FAUNA OF SAUDI ARABIA VOL 10: Edited by W. Buttiker and F. Krupp, 1989.

This continuous series of the animal life of Saudi Arabia and the Arabian region has come of age with the issue of Vol 10; one volume per year

since its first appearance in 1979. In that time nearly 200 specialists have contributed papers to the journal mainly in the fields of taxonomy, faunistics, zoogeography and ecology of the recent issue of 460 pages is a little smaller than the average of previous issues, but continues the tradition of being particularly srong in dealing with invertebrate animal groups - 17 of the 25 papers in this issue are in this category. There are single papers each on category. marine tubificidae, crustaceans and molluscs, three on arachnids and 11 on insects. There is one general paper and the other seven papers concern fish (three), reptiles (three) and Papers on vertebrate animal groups in Arabia probably figure less prominently in the series as there are so many other publication outlets for them. The vertebrate papers in this issue include descriptions of a fish from the Gulf of Aqaba and a monitor lizard from the Republic of Yemen which are both new to science. The latter is especially interesting as it is one of the largest lizards of Arabia and was originally "discovered" when it appeared in a German TV documentary film! The single paper on mammals concerns dominance relationships among gazelle species in captivity. As previously this volume is magnificently produced and edited to a very high standard. It contains many colour and black and white photographs and innumerable drawings. maps, etc.

Hardback, 460 pages (285 x 218 mm), price S.fr. 159. Published by NCWCD, P.O. Box: 61681, Riyadh and Karger Libri AG, P.O. Box: CH-4009, Basle, Switzerland. ISBN 3-7234 0009 4.

WILDLIFE CONSERVATION AND DEVELOPMENT IN SAUDI ARABIA Edited by Abdulaziz H Abuzinada, Paul D. Goriup and Iyad A. Nader, 1989.

The first symposium of the National Commission for Wildlife Conservation and Development in Riyadh took place in February 1987 to formulate a National Plan for conservation and the environment in Saudi Arabia. This title presents the proceedings, being the 45 papers read at the symposium. The symposium covered not only general environmental issues and specific flora and fauna problems but also veterinary and livestock management, range management and education and public awareness. There are 14 general papers on environmental and conservation subjects, ranging widely from the legal aspects of wildlife conservation in Saudi Arabia to conservation education and the planning of wildlife reserves and national parks. There are three papers on marine conservation, six on plant conservation, and nine on wild animal conservation including four on mammals and three on birds. The ornithological papers concern the birds of Saudi Arabia past, present and future; conservation of endemic and migratory birds and the status and conservation of bustards in Arabia. The chapter on captive management and conservation (13 papers) concentrates on captive breeding of rare mammals and birds and discusses diseases afflicting Arabian plants, animals and birds. Each paper is in English with an Arabic abstract. The text is accompanied by many tables and maps, plus a few colour photographs.

Laminated card covers, 419 pages (170 x 240mm. Price not known. Available from The National Commission for Wildlife Conservation and Development, P.O. Box 61681, Riyadh 11575, Saudi Arabia.

THE WILD FLOWERING PLANTS OF BAHRAIN by M D & C D Cornes, 1989.

Bahrain is 40 km long, 15 km at its widest point and rises to a maximum elevation of 134 m. This is almost a speck of dust compared with the land mass of the Arabian Peninsula and could so easily have been a totally barren, waterless island. It is, however, blessed with a natural water supply which comes underground from the mainland and thus many plants can thrive. Much of the northern part of the island is cultivated with vegetables and date palms. Over the remainder there is a variety of rocky, sandy and muddy habitats which support nearly 300 species of plants, 254 of which are dealt with in this book (175 genera, 55 families). The book is about how to find and identify these plants. It is divided into four parts. Introductory chapters deal with a description of the island, its climate and the adaptability of plants in meeting the climatic stresses. There are also details of the island's plant habitats, plant associations and the effects of human activities on the flora. The second section headed "Photos of Selected Species" is a rather peculiar section of 14 plates which appear to serve no useful purpose and one suspects that these pictures could not be fitted in conveniently elsewhere in the book. The third and main section contains identification keys and species descriptions with photographs. The four identification keys are extremely useful and easy to use charts which divide plants into categories which anyone can understand and use, and then through simple stages arrive at an identification. These keys used in conjunction with the glossary of botanical terms will make botanical specimen identification on Bahrain relatively easy for anyone with an interest in flowers. The species anyone with an interest in flowers. The species accounts are preceded by family descriptions and introductions. In each account there are notes on the species' status, habitat, manner of growth, the appearance of plant generally and the specific appearance of the flowers, seeds, buds, etc. Flowering periods, medical and economic notes are given as appropriate. The species accounts are particularly noteworthy for their accounts are particularly noteworthy for their easy reading style which non-botanists will be able to use. Where applicable, English and able to use. Where applicable, English and anglicised Arabic names are given. The species accounts are backed up by very good quality colour photographs. Not all the 254 species dealt with are illustrated, but some species are dealt with are illustrated, but some species are illustrated by two or more pictures giving a total of some 400+ photographs. This book is extremely good value for money and is recommended for all those amateur and professional botanists interested in the plants of the region. It is essential reading for anyone on Bahrain interested in plants, and is likely to be a useful beginners book for the plants of the whole Coastal region of the Arabian Culf coastal region of the Arabian Gulf.

Laminated card covers, 272 pages (168 x 240 mm), price £14.50. Published by Immel, Ely House, 37 Dover Street, London W1X 3RB. ISBN 0-907151-41-8.

THE FLORA OF THE UNITED ARAB EMIRATES - AN INTRODUCTION by A R Western, 1989.

There has been a whole flurry of books on the environment and natural history of the United Arab Emirates in the last few years but this is the first title concerned with the flora. It is a non-technical book which presents a very attractive and easy to read introduction to the flora of this interesting corner of Arabia. The author considers that there are some 450 - 500 species of plants in the UAE, and in his book he aims to give details of a representative selection of the commoner flowering plants. It covers about 300 species, the UAE is a relatively small country only 83,000 sq km but with a range of habitats and geology producing good conditions for an unexpected variety of plants. Introductory chapters deal with the various habitat types and describe the geology and physiography of the coasts, islands, dune systems, alluvial plains and mountains. There are 40 full colour habitat photos to illustrate this section. Other introductory sections cover climate, water, soils and the influence of man. We learn that in some places plants are under threat from the

water table lowering through pumping of ground water for irrigation purposes. There is a detailed discussion on the characteristics of desert vegetation in the UAE and the adaptions of individual plants to the desert environment, with a description of the various plant associations for each of the major habitats. One hundred and forty pages of the book are devoted to the family and species accounts (122 pages for dicotyledons and 18 pages for monocotyledons). For each and 18 pages for monocotyledons). For each family a scientific and English name is given, with a brief description, followed by a species account of examples from each family. For some families only one account appears but the average would appear to be four or five, with a large family like the daisys having 29 species accounts. Each plant is described in terms of mode of growth, flowering period, habitats as mode of growth, flowering period, habitats as well as its size, leaf, flower, fruit and, where appropriate, scent. For each species dealt with there is a very good map which shows the location of records within the UAE by a colour code to indicate rare, common etc. Every species account is also illustrated by a full colour photograph of the plant in its natural habitat making for a very attractive format overall. An appendix provides a complete check list of the plant species collected or recorded in the UAE. There is also an extensive bibliography and index of those plants dealt with. A very easy to use attractive book which achieves its purpose of UAE introduction to an being Recommended.

Laminated card covers, 191 pages (289 x 207 mm), price fl3 (post and package included). It is published by the office of the Vice Chancellor, United Arab Emirates University, PO Box 15551, Al Ain, United Arab Emirates. Copies may be obtainable from that address or alternatively write to the author c/o ADMA-OPCP, PO Box 303, Abu Dhabi, United Arab Emirates.



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ZOOLOGY IN THE MIDDLE EAST, Vol 3, 1989.

Since ZME 1 was reviewed (Phoenix 5:16) this journal has gone from strength to strength. The editorial team remains the same as does the size and format. This new issue comprises 12 papers, one each on mammals, birds (distribution of the purple galinule Prophyrio prophyrio in the eastern Mediterranean) and fish, two each on molluscs, insects and crustaceans and three on reptiles. The geographical centre of gravity of the journal is still Turkey, with six of the papers relating specifically to that country. Other countries dealt with are Iraq and Egypt with more general papers on the eastern Mediterranean area and the Near East.

Card covers, 133 pages (155 x 230 mm), price DM 32. Available from Max Kasparek Verlag, Bleichstrasse 1, 6900 Heidelberg, Germany. ISBN 3-925064-06-0.

NEW ARABIC BOOK

THE BIRDS OF SOUTH YEMEN by Nabeel Obadi, 1989.

There has been almost nothing published on the wildlife or environment of South Yemen in recent years and it therefore came as a very pleasant surprise to learn of this title. It is the first book specifically about the birds of South Yemen, in Arabic. It has an attractive format with 117 colour plates. The author, who is the Wildlife Research Officer with the Ministry of Agriculture in Aden, is possibly the only active local ornithologist in that part of South Arabia. Against a background of logistic, reprographic and financial constraints, he has managed to photograph all the birds for his book, typeset the text and arrange for it to be printed. He now faces the task of distributing his work. Nabeel has chosen the 97 species dealt with in the book to represent the avifauna of South Yemen from about 300 species regularly occurring in the The species accounts provide the name of each bird in Arabic, the local South Yemeni name if different, as well as the English and scientific names. There then follows a description and notes on habitat, food, status, as well as breeding details. The quality of the photographs are very variable. Some subjects have obviously been taken with a long-focus lens used at its limit with the image then blown up further, creating rather less than satisfactory For other plates the printers have plates. obviously had trouble with their colour registration. Overall, however, the photographs are good and include several rarely photographed species, and one species which has probably never been photographed before. Most pictures are taken in their natural habitat. Nabeel's bird pictures include black-headed heron, spotted thick-knee. South Arabian wheatear, Somali chestnut-winged starling (from Socotra) and the endemic Socotra sparrow. Arabic readers will want this title for their bookshelf and it will also be useful to non-Arabic speakers for the photographs it contains.

Laminated card covers, 201 pages (221 x 151mm). Price £18 (includes p&p). Available from Nabeel Obadi, P.O. Box 916 Crater, Aden, Republic of Yemen.

THE OMAN NATURAL HISTORY MUSEUM

IMPORTANT

Note new address for ABBA and Phoenix; see back page.

am sick of the environment!" Many will sympathise with him, for the word tends to be over-used, and (as in that case) not fully understood. The Oman Natural History Museum, which opened in December 1985, meets this challenge, and shows to the public of Oman, and to the many visitors from the Arab Gulf, the West and East, the wonderful variety in the natural life which surrounds them in the Sultanate. It is in this museum that they see the real meaning of the "environment" - with scarcely a mention of the word!

At the time of HM Sultan Qaboos' accession in July 1970, education, communications and the media were poor. The people, restricted to village life and tribal boundaries, were ignorant of much of the rest of the country. The establishment of the Office of the Adviser for Conservation and Development in 1974 led to a series of biological field studies; results were published, books were prepared in Arabic, films made and educationalists and the media began to take note. A thirst for knowledge began, which has not slackened.

The Natural History Museum, conceived in 1984 on a very small budget, set out to show the country and this new knowledge of Oman's heritage to visitors of all ages and backgrounds. Arabic is given precedence over English.

Of two galleries in the first phase of what should be a continuing expansion, the first takes the time 'Oman - Land of Contrasts', and by featuring six 'regions' in words, pictures and mounted exhibits helps the visitor become aware of the enormous contrast in landforms, animals and plantlife to be found in the broad spread of 300,000 sq km between the northernmost islands in the Strait of Hormuz at 26° 30' N and the most southernly part of Dhofar at 16° 38' N on coast of the Arabian Sea. The Musandam, the Batinah, the northern mountains, the interior, the monsoon-enriched Dhofar mountains and the many islands (natural nature reserves) are the six parts given special treatment.

Oman lies in the mixing zone of three of the world's biogeographic provinces, the Palearctic, Indomalayan and Afrotropical, and this explains in part its varied mammal, bird, reptile, invertebrate and plant life; several species appear to be relicts of the time when land bridges joined Arabia with Africa and Asia. The 1800 km coastline of the Arabian Gulf, the Gulf of Oman and the Arabian Sea lends variety to the climate as well as the fauna. The Museum introduces these ideas, with examples of the past and present scenery, animals and plants of Oman.

The larger gallery has superb diormas which feature the Arabian oryx, the cats (leopard and caracal), the canids (wolf and red fox) and the Arabian tahr, all in lifelike settings. Then come birds of sea and shore, of wetlands and of cultivation, with special displays of house sparrow owls flight, adaptations and migration. These animals have all met natural deaths (the museum's Register of Accessions has the details). Nothing is killed for display and the museum is dependent on the public bringing in their finds (for which no financial reward is given); this has given the museum an enviable reputation for authenticity. Invertebrates are not neglected, with displays of Oman's butterflies, moths, honeybees, beetles, grasshoppers, molluscs and corals, all contrived with advice from specialists in their field.

Behind the scenes, "Friends of the Museum" help the Omani staff to curate and enlarge the reference and study collections of the National Herbarium, the National Shell Collection and the insect collections, all in special cabinets; as well as the National Cetacean Collection and osteological collection. A small botanic garden is growing well, and the business community have assisted in the impressive display of a monster sperm whale skeleton and of a 260 million year old fossil tree...

Omanis, many with entire families, now form the majority of the visitors, and the policy of opening without charge seven days a week, including two evenings, undoubtedly helps them to come to enjoy this small, compact exhibition. Most visitors to the Sultanate come first to this museum, eager to get a preview and 'feel' of the country before starting their tour. For most visitors this will be their only opportunity to see Oman's animals, for many are shy, nocturnal and scarce and some are still in danger. The successes of the Sultan's plans for saving this heritage for future generations, the subject of a special exhibit called "Conservation in Action", are already well known, but the real meaning of "the Environment" and "Conservation" in Oman becomes clear during a visit to this thriving natural history museum.

M.D. Gallagher, P.O. Box: 668, Muscat, Sultanate of Oman.



Fig 9. Alpine swift were found to breed at two sites in central Arabia in May 1990.

OSME SURVEY OF SOUTH YEMEN IN 1992

The Ornithological Society of the Middle East is becoming recognised as a Society that can plan and mount important ornithological surveys. Its first expedition was to North Yemen (previously the Yemen Arab Republic) in 1985 and it is currently planning an ambitious survey in Turkey in 1991 in conjunction with local groups. Its third survey will be to South Yemen (formerly the

People's Democratic Republic of Yemen, but now unified with the YAR as the Republic of Yemen) a corner of south west Arabia which is till very poorly known ornithologically. The Conservation Research Committee of the Society is now formulating plans for an extensive 2 month survey, from February to April, 1992. It is seeking a team of 12 members to be led by Richard Porter, whose own experience and knowledge of Middle East birds and migration is unsurpassed. The survey will pay special attention to raptor migration, look very closely at the ecology of endemic species of Arabia and carry out detailed studies of the various bird habitats available in the country. In addition, specialists within the team hope to look into other ornithological issues including the problems caused by large numbers of Indian house crows in the Aden area. The survey will plan to include Socotra Island in its itinerary, which has its own endemics, and a shipborne examination of coastal and pelagic birds. Those OSME members who are interested in joining this survey for a month or more should contact Richard Porter, OSME, c/o The Lodge, Sandy, Bedfordshire, U.K.

REPORTING PROCEDURES

Still the biggest problem in processing ABBA report sheets (Form3) is the date column (Col. 5) being incorrectly completed. What is needed in this column is a precise numerical date arranged in the order day/month/year which can be easily computerised. However several observers cannot resist a more literary expression of the date and show for example "March/May 1990" or "Spring 1990" or something similar. In these circumstances it is necessary to pick a representative date for the record before it can be computerised. In both the cases above this could be, for example, 20.03.90. However, choosing a date like this for say, eggs in the nest, would create errors and so the cautious compromise might be to call the date 00.03.90 indicating an imprecise date in March 1990. If the observer merely recorded "1990" only 00.00.90 can be computerised, ie a date and month unknown in 1990.

Very often close examination of the report reveals that the observer was quite aware of the full date but has attempted to indicate the period of occurrence in the date column. It cannot be over-emphasised that only a single date can be shown in this column and all observers are urged to add any comment about the period of observations in the appropriate remarks column (Col. 6) or on the reverse for more extensive notes. If there are, as is often the case, a number of observations of a particular species in one square during a single breeding season the observer should record the date which is most representative of the highest breeding evidence code achieved. If for example a pair of hoopoes were observed courting, nest building, laying eggs, incubating and then feeding young, the highest code would be 16 and the most appropriate date might be the date the eggs hatched. However in the comments section the observer should record the dates of all the other activities to give a full picture of breeding.

REQUEST FOR INFORMATION: WHERE DO DEAD SEA SPARROWS GO IN WINTER?

When the Dead Sea sparrow was first discovered by H.M. Uppcher in 1864 its world population was thought to consist of only a few isolated colonies at the southern end of the Dead Sea. Twenty years later, Canon Tristram could still only write that "the bird is the most limited in the world in its range and scarcity in numbers of individuals." Further populations were later found in the Sistan on the Iran-Afghan border (1888) and south west Iran (1904), but these did little to dispel the idea that this was a rare bird, the widely dispersed populations suggesting

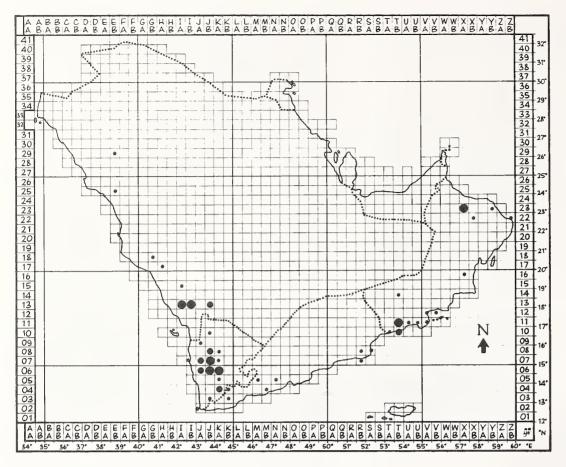


Fig 10 Arabian redlegged partridge

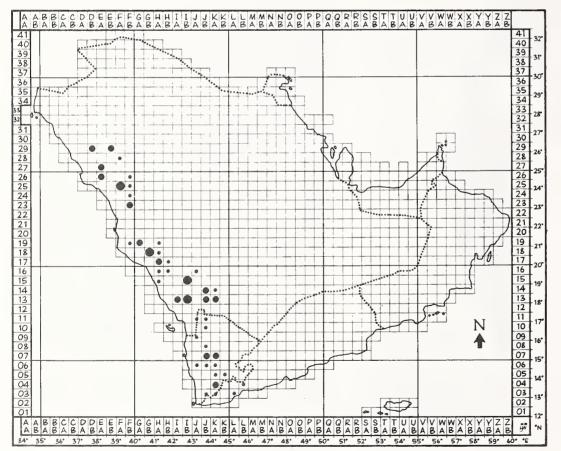


Fig 11 Arabian serin

(both maps)

- Confirmed breeding
- Probable breeding
- Other records

Figures 10 and 11 show the current distribution maps of two Arabian endemic species. The Arabian red-legged partridge (Fig 10) is now known to occur further north in western Saudi Arabia than previously thought. Its distribution in Oman is wider than known only a few

years ago. Distribution in South Yemen will probably turn out to be more extensive than present records suggest. Similarly the Arabian serin (Fig 11) is now known to occur 500 km further north west than was suspected 10 years ago.

a relict species on its way to extinction.

There was apparently little change in 1910 when Capt. Carruthers found only the same isolated colonies at the south end of the Dead Sea; yet less than a decade later Col. Meinertzhagen reported it occurred commonly in the Jordan valley north of the Dead Sea, anticipating the explosive expansion that was to occur so that by 1980 it had spread south to Eilat, at the head of the Gulf of Aqaba, and north up the Jordan valley to 'Emeq Hula and almost to Haifa on the Mediterranean coast. Contemporaneously a similar spread of the Mesopotamian population occurred up the Tigris-Euphrates valley into Turkey and finally west to Cyprus by 1980.

The majority of the Near East population disappears from its breeding quarters in the winter but little is known of where they go. have been able to find only the following observations in the published literature, though no doubt there are others I have overlooked:

- Small numbers near the Dead Sea: near Ain Fashkha ($31^{\circ}43$ 'N $35^{\circ}27$ 'E) in December 1987; the Wilderness of Jedah in February 1956.
- ca. 50 in the Ain Zarbi valley near El Ruseifa (32 $^{\circ}$ 01'N 36 $^{\circ}$ 02'E) in February 1965.
- Late winter (January) visitor to Eilat (29 $^{\rm o}$ 33'N $34^{\rm o}57'E)$ and a regular passage there from late February to April (1977 and 1978).
- 4. A flock of 60-70 in the Huleh Nature Reserve $(33^{\circ}05'N \ 36^{\circ}35'E)$ in October 1981.

In an attempt to obtain more information, Dr Mark Boyd put a note on my behalf in $OSME\ Bulletin\ No$ 24 requesting records of sightings outside the breeding season. This resulted in the following responses:

- Flocks at Eilat in November-December 1985, and November 1986.
- Two flocks, each of about 20 birds, near Eilat in early November 1989.
- 50+ in cultivated land, South Shona, (31°34'N 35°36'E) on 15 December 1989; Jordan 250+ at the same place in late January 1990.
- 10 at Fidon Oasis, Jordan, $(30^{\circ}40^{\circ}N \quad 36^{\circ}23^{\circ}E)$ on 24 December 1989.

These observations, though few in number, have added materially to our knowledge of the winter distribution of the Dead Sea Sparrow, suggesting a wide dispersal into cultivated land. It would be nice, however, to have more: either published information I have missed or unpublished records. In addition, I should like to ask observers to keep an eye open for this species in the future and let me have details of any sightings outside the breeding season. Acknowledgements: I wish to thank Dr Mark Boyd for publishing my initial request in the OSME Bulletin and also I J Andrews, A D Hawkins, E Hirschfeld and J L Swallow who responded and provided the information summarised above. a wide dispersal into cultivated land. It would

J Denis Summers-Smith, Merlewood, The Avenue, Guisborough, Cleveland, TS14 8EE, England.

provided the information summarised above.

THE GAIA QUEST TRUST

The Gaia Quest Trust is a charity formed to facilitate marine biological and oceanographic research in the shallow waters of the world, especially the Indian Ocean including the Red Sea and southern coast of Arabia. Operations will be from a purpose designed 21 m catamaran Gaia Quest II. This vessel follows Gaia Quest I which operated for a number of years in the Indian Ocean until 1989. Gaia Quest I was a veteran of numerous surveys including seabirds and shorebirds studies and censuses of turtles. The trust aims to provide the vessel at subsidised rates which will provide a cost effective base for surveys by up to 12 scientists.

Further details are available from Richard Speir, Gais Quest Trust, c/o Geology Department, Imperial College of Science and Technology, Prince Consort Road, London SW7 2BP.

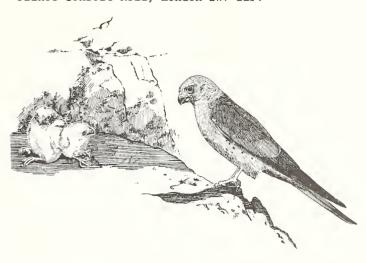


Fig 12. The lesser kestrel bred in Arabia for the first time in 1990 in the Harrat al Harrah Reserve, northern Saudi Arabia. See New Breeding Species.

DATA PASSED ON

Due to the extended period over which information for the Atlas is being collected it is important that its data bank should be available for use by all who may need it. Information, including draft maps and other breeding data, in respect of individual species, groups of species or the birds found in particular areas can be provided on request and indeed enguiries. on request and indeed enquiries are welcomed. Enquiries have come from ABBA contributors wanting historical records to "write up" the birds of their local area; researchers from around the world, working on groups of species occurring also in Arabia and those interested in general aspects of Middle East ornithology. Information passed on recently in response enquiries have included the following. To Birds of the Western Palearctic for species dealt with in the remaining volumes, Arabian warbler, Arabian babbler, sunbirds, sparrows and finches;
J Erikson, Oman Bird Group, little green beeeater; P Symens, NCWCD Riyadh, sandgrouse,
partridges and cream coloured courser; F S Hameed, NCWCD Riyadh, kestrel; R Martin (UK) Arabian bustard; M D Gallagher (Omen), rose-ringed parakeet; R A C Jensen (Oman), Cuckoos; C Ryall (Kenya), Indian house crow; P Mundy (Zimbabwe), Vultures and C Pilcher (Kuwait), buntings. Individual items of information have been provided to many other correspondents.

Information that can be supplied at present is limited only by the manual record system in operation. When the information bank is fully automated in 1991 a much more comprehensive information service will be available. Contributors provide records to the project on the understanding that their records may be passed on to anyone who has a legitimate use for them. However, the facility does exist for contributors to place an embargo on individual records e.g. if they wish to protect a rare breeding species or where they intend to publish their own information exclusively.

FORTHCOMING EVENTS

The 1991 OSME AGM will take place at the Natural History Museum, South Kensington, London on Saturday 20 July. The meeting will start at 1400 hours. Tickets can be obtained from the OSME Secretary (c/o The Lodge, Sandy, Bedfordshire, England). Tickets provide free entry to the museum and a discount on Museum sales.

SOCIETY NEWS

Ornithological Society of North Yemen

There has been no news of this society in the last twelve months. With the unification of the There has been no news of this society in the last twelve months. With the unification of the Two Yemens it has presumably at least changed its name? Any news of this group would be welcomed.

Oatar Natural History Society

Although this society has not published much in recent years it still has several active members. Anyone interested in the birds of Qatar or intending to visit there should contact Bob and Helen Nation, ICS Dept, QGPC, PO Box 3212, Doha, Qatar. Mrs Effie Warr (6 Mansion Drive, Tring, Herts, HP23 5BD), who has been collating Gulf records for many years, has recently prepared a comprehensive list of Qatar birds.

FOR SALE: NCWCD TECHNICAL REPORTS OF ATLAS SURVEYS

To date, the Co-ordinator of the ABBA project has completed nine atlassing surveys. For each survey a summary report is available (usually 4-8 pages of single spaced A4). The summary report is followed later by a full report (68-82 pages) prepared for the NCWCD, providing all the information collected on bird distribution and numbers. In line with the stated ABBA policy of making all information collected by the project available to those who want to use it, these full reports are copied to relevant libraries, museums and societies and a very small number are available for sale. Reports of Surveys Nos 4,5,6 and 7 to the Asir National Park, northern Arabia, the Asir-Hedjaz Mountains and north west Saudi Arabia, respectively, are currently available. For details see the sales list accompanying this newsletter.

THE PHOENIX

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PHOTOS NEEDED FOR PHOENIX

Photos of habitats, Arabian breeding birds, nests and eggs etc are welcomed and requested for inclusion in future issues of *Phoenix*. Photos may be printed with just a caption, for their aesthetic value, or can be submitted to illustrate notes and papers. Photos should be black and white (glossy or matt) with good contrast and a width of at least 12 cm.

RECORDS WANTED

Readers who have records of Arabian birds, however old, and whether published or not, and who have not yet received the "Instructions to Contributors" and a set of report forms, are urged to make contact with the Co-ordinator. Old records are especially valuable in assessing population changes and range expansions and contractions. Although the project concerns resident and breeding species, it is not only proved breeding information is just as valuable.

Information on exotics and escaped species, ringed birds and habitats is also needed.

CONTRIBUTIONS TO PHOENIX

Short articles relevant to the aims of the ABBA project are welcomed, especially notes on the avifauna of specific areas or studies concerning particular species. Consideration should be given to offering more lengthy papers to the journals of newsletters of local or regional natural history groups and societies. Scientific papers on the ornithology of Arabia and elsewhere in the Middle East may be offered to Sandgrouse the journal of the Ornithological Society of the Middle East, c/o The Lodge, Sandy, Bedfordshire, SG19 2DL, England. Notices, requests for information and advertisements of reports etc are inserted in Phoenix free of charge. All submissions should be typed, double spaced, with wide margins.



Fig 13. A group of 22 lappet-faced vultures were seen in central Arabia in May 1990.

HOW TO OBTAIN PHOENIX

The Phoenix is issued free to all current contributors to the ABBA project and is sent benefactors and recent correspondents. A bundle of every issue is also passed to each society or group active in Arabia. It is available on subscription for a single payment of £15 (\$30) for the next five issues, ie numbers 8 to 12 inclusive. Subscribers receive a reminder when their next subscription is due. Phoenix nos 1-6 are available at £2 each (or the set for £10). Those leaving Arabia might be interested in placing a subscription order as the price represents a small sum for all the news of Arabian birds for five years.

CREDITS

Artwork for European roller, lesser kestrel, lappet-faced vulture, alpine swift, Hilary Welch. Crab plover photo R N Fryer; photos of south west Saudi Arabian habitats, Roderick Fisher. Khor Kalba sketch and map reproduced from The Birds of the United Arab Emirates with the permission of the author Colin Richardson; Maps MCJ.

ADDRESS

All correspondence for the Atlas of the Breeding Birds of Arabia and Phoenix should be sent to Michael C. Jennings, Co-ordinator ABBA, 1 Warners Farm, Warners Drove, Somersham, Cambridgeshire, PE17 3HW.